

WHAT IS CLAIMED IS:

1. A disk device comprising:

a controller which determines a linear velocity
at the time of rotating a disk on the basis of given
5 operation information and control information read from
the disk;

a laser output determination circuit which
determines a read laser output of a photodiode
corresponding to the linear velocity determined by the
10 controller and causes the photodiode to emit a laser
light on the basis of a control signal corresponding to
the determined read laser output; and

a sampling circuit which detects a laser light
emitted by the photodiode and makes the control signal
15 of the laser output determination circuit appropriate
according to a sampling result obtained by performing
the detection several times.

2. A disk device according to claim 1, wherein
the laser output determination circuit determines the
20 read laser output in proportion to a value of the
linear velocity, and causes the photodiode to emit
a laser light on the basis of a control signal
corresponding to the determined read laser output.

3. A disk device according to claim 1, wherein,
25 when a value of the linear velocity exceeds a
predetermined threshold value, the laser output
determination circuit changes the read laser output to

a predetermined value previously prepared, and causes the photodiode to emit a laser light on the basis of a control signal corresponding to the determined read laser output.

5 4. A disk device according to claim 1, wherein the laser output determination circuit determines a read laser output of a photodiode according to the linear velocity in consideration of management information of the disk and operation information such
10 as a user-desired recording velocity and the like.

5. A disk device according to claim 1, further comprising:

a processing section which performs reproducing processing and recording processing for the disk
15 according to a laser light emitted in the laser output determination circuit.

6. A disk device comprising:

a controller which determines a linear velocity in order to rotate a disk at a constant angular velocity
20 by CAV (Constant Angular Velocity) control on the basis of given operation information and control information read from the disk;

a laser output determination circuit which determines a read laser output of a photodiode
25 according to the linear velocity determined by the controller in addition to the control information and the operation information, and causes the photodiode to

emit a laser light on the basis of a control signal corresponding to the determined read laser output; and

a sampling circuit which detects a laser light emitted by the photodiode, and makes the control signal
5 of the laser output determination circuit appropriate according to a sampling result obtained by performing the detection several times.

7. A disk device according to claim 6, wherein the laser output determination circuit determines the
10 read laser output in proportion to a value of the linear velocity, and causes the photodiode to emit a laser light on the basis of a control signal corresponding to the determined read laser output.

8. A disk device according to claim 6, wherein,
15 when a value of the linear velocity exceeds a predetermined threshold value, the laser output determination circuit changes the read laser output to a predetermined value previously prepared, and causes the photodiode to emit a laser light on the basis of
20 a control signal corresponding to the determined read laser output.

9. A disk device according to claim 6, wherein the laser output determination circuit determines
a read laser output of a photodiode according to
25 the linear velocity in consideration of management information of the disk and operation information such as a user-desired recording velocity and the like.

10. A disk device according to claim 6, further comprising:

5 a processing section which performs reproducing processing and recording processing for the disk according to a laser light emitted by the laser output determination circuit.

11. A disk processing method comprising:

determining a linear velocity at the time of rotating a disk on the basis of given operation
10 information and control information read from the disk;

determining a read laser output of a photodiode according to the determined linear velocity, and causing the photodiode to emit a laser light on the basis of a control signal corresponding to the
15 determined read laser output; and

detecting a laser light emitted by the photodiode, and making the control signal of the laser output determination circuit appropriate according to a sampling result obtained by performing the detection
20 several times.

12. A disk processing method according to claim 11, wherein the read laser output is determined in proportion to a value of the linear velocity to cause the photodiode to emit a laser light on the basis
25 of a control signal corresponding to the determined read laser output.

13. A disk processing method according to

claim 11, wherein, when a value of the linear velocity exceeds a predetermined threshold value, the read laser output is changed to a predetermined value previously prepared to cause the photodiode to emit a laser light
5 on the basis of a control signal corresponding to the determined read laser output.

14. A disk processing method according to claim 11, wherein the determining a laser output determines a read laser output of a photodiode
10 according to the linear velocity in consideration of management information of the disk and operation information such as a user-desired recording velocity and the like.

15. A disk processing method according to claim 11, further comprising:

performing reproducing processing and recording processing for the disk according to a laser light emitted by the laser output determination circuit.

16. A disk processing method comprising:
20 determining a linear velocity in order to rotate a disk at a constant angular velocity by CAV (Constant Angular Velocity) control on the basis of given operation information and control information read from the disk;

25 determining a read laser output of a photodiode according to the linear velocity determined by the controller, and causing the photodiode to emit a laser

light on the basis of a control signal corresponding to the determined read laser output; and

detecting a laser light emitted by the photodiode by a monitor, and making the control signal of the
5 laser output determination circuit appropriate according to a sampling result obtained by performing the detection several times.

17. A disk processing method according to claim 16, wherein the read laser output is determined
10 in proportion to a value of the linear velocity to cause the photodiode to emit a laser light on the basis of a control signal corresponding to the determined read laser output.

18. A disk processing method according to claim 16, wherein, when a value of the linear velocity
15 exceeds a predetermined threshold value, the read laser output is changed to a predetermined value previously prepared to cause the photodiode to emit a laser light on the basis of a control signal corresponding to the
20 determined read laser output.

19. A disk processing method according to claim 16, wherein the determining a laser output determines a read laser output of a photodiode according to the linear velocity in consideration of
25 management information of the disk and operation information such as a user-desired recording velocity and the like.

20. A disk processing method according to
claim 16, further comprising:

performing reproducing processing and recording
processing for the disk according to a laser light
5 emitted by the laser output determination circuit.